

***LineUp With Math™* Alignment**  
**Montana Standards for Mathematics 10/98**

**Content Standard 1:** Students engage in the mathematical processes of problem solving and reasoning, estimation, communication, connections and applications, and using appropriate technology.

**Benchmarks: End of Grade 8**

<b>Students will:</b>	<b><i>LineUp With Math™</i> Activities</b>
1. formulate and solve multi-step and nonroutine problems using a variety of strategies. Generalize methods to new problem situations.	--Explore and apply a variety of strategies to optimize the solution of air traffic control conflicts.
2. select and apply appropriate estimation strategies throughout the problem-solving process.	--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.  --Choose and apply a variety of strategies to optimize the solution of air traffic control conflicts.
3. interpret and communicate mathematical ideas and logical arguments using correct mathematical terms and notations.	--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.
4. recognize and investigate the relevance and usefulness of mathematics through applications, both in and out of school.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

**Content Standard 2:** Students demonstrate understanding of and an ability to use numbers and operations.

**Benchmarks: End of Grade 8**

<b>Students will:</b>	<b><i>LineUp With Math™</i> Activities</b>
3. use the relationships and applications of ratio, proportion, percent, and scientific notation.	--Use an interactive simulator plus calculation worksheets to apply proportional reasoning to identify and resolve distance, rate, time conflicts in air traffic control.  --Use percent relationships to resolve distance, rate, time conflicts in air traffic control.

**Content Standard 5:** Students demonstrate understanding of measurable attributes and an ability to use measurement processes.

**Benchmarks: End of Grade 8**

<b>Students will:</b>	<b><i>LineUp With Math™</i> Activities</b>
1. estimate, make, and use measurements to describe, compare and/or contrast objects in real-world situations.	--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.  --Use an interactive simulator to identify distance, rate, time conflicts in air traffic control problems and resolve the conflicts by varying plane speeds or changing plane routes.
5. use the concepts of rates and other derived and indirect measurements.	--Use an interactive simulator to identify distance, rate, time conflicts in air traffic control problems and resolve the conflicts by varying plane speeds or changing plane routes.